Docket No. END920010078

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application: Ngai et al.

Group Art Unit: : IBM Corporation

Examiner: : Intellectual Property Law

Serial No.: : Dept. N50, Bldg. 040-4

Filed: Herewith : 1701 North Street

: Endicott, NY 13760

Title: PROGRAMMABLE HORIZONTAL FILTER WITH NOISE REDUCTION AND

IMAGE SCALING FOR VIDEO ENCODING SYSTEM

Commissioner for Patents Washington, D.C. 20231

Dear Sir:

## INFORMATION DISCLOSURE STATEMENT

It is respectfully requested that the publications identified below and listed on the enclosed PTO-1449 Form(s) be considered by the United States Patent and Trademark Office (USPTO) in the subject United States patent application and be made of record therein. A copy of each publication is enclosed, and this submission is otherwise believed to be in compliance with 37 C.F.R. Sections 1.97 and 1.98. This information is all the material information, as defined in 37 C.F.R. Section 1.56(a), of which the submitter is aware. However, no representation is made or intended that a search has been made or that no other such material information exists.

## **PATENTS**

1.	4,882,627	2.	5,367,629	3.	5,438,374
4.	5,502,489	5.	5,557,330	6.	5,606,373
7.	5,621,465	8.	5,621,468	9.	5,764,307
10.	5,867,221	11.	5,926,220	12.	5,926,224
13.	5,953,506	14.	5,959,693	15.	5,974,193
16.	5,977,947	17.	6,005,626	18.	6,037,986
19.	6,061,100	20.	6,067,125	21.	6,108,047
22	6 208 693	23	6 233.277		

- 24. Clear Motion Integrated Noise Reduction System, DiviCom, September 1999.
- 25. Interpolating Images To Higher Resolution Using A Feedforward 'Neural', IBM Technical Disclosure Bulletin, Vol. 35, No. 1A, June 1992.
- 26. "Design of HDTV subband filterbanks considering VLSI implementation constraints", Pestel, U.; Gruger, K., IEEE Trans. on Circuits and Systems for Video Technology, March 1991, vol. 1, Is. 1, pp. 14-21.
- 27. Efficient DCT-Domain Pre-filtering inside a Video Encoder, S.D. Kim, et al., Proceedings of the SPIE The International Society for Optical Engineering, vol. 4067, pt. 1-3, pp. 1579-1588.
- 28. J.D. Greenfield, et al., pending U.S. patent application Serial No. 09/838,758, filed April 19, 2001, entitled "Simultaneous Vertical Spatial Filtering And Chroma Conversion In Video Images".

None of the above-cited publications, taken singularly or in combination, is believed to teach or suggest the invention as defined by the claims provided in the instant application.

Respectfully submitted,

Dated: January 22, 2002

By:

Kevin P. Radigan, Esq.

Telephone No.: (518) 452-5600

Fax No.:

(518) 452-5579

Reg. No. 31,789

, <u>2</u>				ATTY DOCKET NO. <b>END920010078</b>		SERIAL NO.				
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					Ngai et al.					
	(OSE SEVERAL SHOOLS II HOOGSSULY)				·	FILING Herewith		GROUP SO CELLO		
				U.S	. PATENT	DOCUMENTS			ිල් <b>ල</b>	
*EXAMINER			DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT	
	AA	4,88	82,627	11/21/89	Keesen	et al.	358	166		
	AB	5,30	67,629	11/22/94	Chu et al.		395	162		
	AC	5,43	38,374	08/01/95	Yan		348	620		
	AD	5,50	02,489	03/26/96	Kim et	al.	348	607		
	AE	5,55	5,557,330 09/17		Astle		348 394			-
	AF	5,60	06,373	02/25/97	Dopp et al.		348	459		
	AG	5,62	21,465	04/15/97	Kondo		348	395		
	АН	5,62	21,468	04/15/97	Kim		348	416		
	AI	5,70	64,307	06/09/98	Ozcelik et al.		348	608	608	
	AJ	5,80	67,221	02/02/99	Pullen et al.		348	417		
	AK	5,92	5,926,220 07/20/		Linzer		348	931		
				FORE	IGN PATE	NT DOCUMENTS				
	DOCUMENT NUMBER			DATE		COUNTRY	CLASS	SUBCLASS	TRANS	ATION NO
									YES	NO
_		<u> </u>								
		_								
	<u> </u>	<u> </u>	OTHER DOCUMEN	NTS (Includin	g Author	, Title, Date, Pertinent I	Pages, Etc	.)		
			Clear Motion Integrated	Noise Reduction	n System,	DiviCom, September 1999	•	<u>.</u> .		
		AX								
		AY	Interpolating Images To Higher Resolution Using A Feedforward 'Neural', IBM Technical Disclosure Bulletin, Vol. 35., No. 1A, June 1992.							
EXAMINE	R					DATE CONSIDERED				
			ference considered, whethe			ance with MPEP 609; Draw	line through	citation if not in co	onformance	and not
	. HICK	40 <del>0</del> 00	py or this form with flext Con	ппиничаний то ар	J.IOGITE.					

## SERIAL NO. ATTY DOCKET NO. END920010078 INFORMATION DISCLOSURE CITATION Ngai et al. (Use several sheets if necessary) GROUP FILING Herewith **U.S. PATENT DOCUMENTS** FILING DATE \*EXAMINER SUBCLASS CLASS DOCUMENT NUMBER DATE NAME IF APPROPRIATE INITIAL 348 413 07/20/99 Nagasawa 5,926,224 ΑL 395 200.61 09/14/99 Kalra et al. 5,953,506 AM 348 09/28/99 Wu et al. 624 5,959,693 ΑN 10/26/99 Baudouin 382 261 AO 5,974,193 345 127 5,977,947 11/02/99 Potu AP 02/21/99 348 416 Ding 6,005,626 AQ 03/14/00 Zhang et al. 348 409 6,037,986 AR 05/09/00 Ward et al. 348 607 6,061,100 AS 348 607 05/23/00 6,067,125 May ΑT 08/22/00 348 581 Chen ΑU 6,108,047 375 240.24 03/27/01 Chen et al. 6,208,693 **FOREIGN PATENT DOCUMENTS** TRANSLATION COUNTRY CLASS SUBCLASS DOCUMENT NUMBER DATE YES NO (Including Author, Title, Date, Pertinent Pages, Etc.) OTHER DOCUMENTS "Design of HDTV subband filterbanks considering VLSI implementation constraints", Pestel, U.; Gruger, K., IEEE Trans. on Circuits and Systems for Video Technology, March 1991, vol. 1, Is. 1, pp. 14-21. AZ Efficient DCT-Domain Pre-filtering inside a Video Encoder, S.D. Kim, et al., Proceedings of the SPIE - The International Society for Optical Engineering, vol. 4067, pt. 1-3, pp. 1579-1588. BA DATE CONSIDERED **EXAMINER**

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

>				ATTY DOCKET NO. END92001	SERIAL NO.					
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)					Ngai et al.					
					FILING Herewi		GROUP			
			U	.S. PATENT	DOCUMENTS	····		_		
*EXAMINER		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
INITIAL	AW	6,233,277	05/15/01	Ozcelik	et al.	375	375 240.02	II AI LISOF	NATE.	
									-100	
						-				
	-									
					, .					
	<del>' -</del>	J	FOR	EIGN PATE	NT DOCUMENTS		•		-	
		DOCUMENT NUMBER DATE			COUNTRY		SUBCLASS	TRANS	LATION NO	
			N		<del>,</del>					
				1						
					<del></del>					
		<i>V</i>								
		OTHER DOCUM	•	-	r, Title, Date, Pertine			L		
		J.D. Greenfield, et al., Vertical Spatial Filter BB	pending U.S. pating And Chroma	ent applica Conversion	tion Serial No. 09/838, n In Video Images''.	,758, filed April 1	9, 2001, entitle	d "Simulta	neous	
EXAMINE	R				DATE CONSIDERED					
		al if reference considered, whet			nance with MPEP 609; [	Oraw line through o	citation if not in c	onformance	and not	

Form PTO-A820 (also form PTO-1449)